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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/464,311
Filing Date: December 15, 1999
Appellant(s): CHEN ET AL.

Keith D. Grzelak
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 8/25/05 appealing from the Office action mailed 9/15/04.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,526,389	MURAD et al	2-2003
6,115,693	MCDONOUGH	9-2000

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3, 4, 6, 7, 9-11, 16-22, 25-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murad et al (US 6,526,389), and further in view of McDonough et al (US 6,115,693).

As per claims 1,28, Murad et al discloses:

Processing circuitry operative to process customer telephone call records, (Col. 3, lines 25-32, represented by the programmable controller);

Including telephone call data, (Col. 3, lines 42-59, telephone values]);

A data warehouse coupled with the processing circuitry and configured to store the processed customer telephone call records, (Col. 4, lines 18-19, represented by the memory);

At least one computer program, performed by the profiling engine, and operative to define behavior profiles defined at least in part by probability distributions, using data from the telephone call records, as data cubes and derive similarity measures on patterns extracted from the behavior profiles, (Col. 8, lines 61-65, Col. 10, lines 24-36, represented by the method being computer implemented, and where the behavior profiles are represented by prototypical first behavior profiles and similarity measures

are represented by matches and differences, Col. 5, lines 10-14, where the profile **304** is shown to represent a multi-dimensional probability distribution of calls);

Wherein the behavior profiles are provided as two input calling pattern cubes, C1 and C2, and a similarity cube, Cs, is an output of a comparison between C1 and C2, wherein the similarity cube Cs, represents a pair of corresponding sub-cubes of C1 and C2, (Col. 8, lines 15-20, where the two input calling pattern cubes are represented by two instances of the second level profile where the second level profile represents extracted call prototypes).

And wherein C1 and C2 are count-cubes, a sub-cube is treated as a bag, and cell-wise comparison results are summarized based on bag overlap, wherein each cell of Cs represents the similarity of a pair of corresponding sub-cubs, a cube having a set of dimensions and each cell of the cube being identified by a value from each of the dimensions, (col. 7, lines 3-57, [where it shows that a comparison between qualitative profiles of a daily prototype and of the daily profile under examination as determined on the basis of the CD distance function. In this case, the Diff value represents each cell of Cs since it shows how similar/different the qualitative profiles of a daily prototype, which are derived from instances of a second level profile. This comparison, showing the distance factor represents the bag overlap. The overlap is shown by this distance factor since it is shown that the difference stays at or below the predetermined threshold]).

The count cubes having non-negative integer cell values, and the bag overlap enables comparison of corresponding sub-cubes of distinct count cubes, (Col. 7, lines 41-48, [shows that the distance between the qualitative profile and the nearest non-zero

daily prototype does not exceed a predetermined threshold value, in this case, the non-negative integer cell value is represented by the non-zero daily prototype and the comparison is represented by the distance. As described above, the comparison, showing the distance factor represents the bag overlap as long as the difference stays at or below the predetermined threshold, as shown by the equation Diff<=T]).

Murad et al fails to disclose the following, however McDonough et al discloses:

An On Line Analytical Processing (OLAP) based scalable profiling engine communicating with the data warehouse and operative to build and up data customer behavior profiles by mining the customer telephone call records that flow into the data warehouse, (Col. 11, lines 29-34 and Col. 12, lines 50-53, where the statistics represent the customer profiles).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to incorporate OLAP into the Murad et al patent with the motivation of accurately analyzing trends in a telecommunications environment.

As per claim 3, Murad et al fails to disclose the following, however McDonough et al discloses:

Wherein the profiling engine comprises a commercial data warehouse server, (Col. 7, lines 47-51, represented by the statistics server);

The following is obvious with McDonough since McDonough teaches that an OLAP tool is used to analyze trends and statistics for operational management of the environment (See Col. 11, lines 29-33). In this type of situation, an OLAP server is necessary to provide the services of accessing the proper trend files and routing these

trend files to other computers in the network for analysis. Without the OLAP server, the OLAP tool would have no way of keeping the trend files in order for proper analysis:

and a multi-dimensional OLAP server;

As per claim 4, Murad et al discloses:

Wherein the profiling engine implements multi-level, multi-dimensional pattern analysis and comparison, (Col. 9, lines 6-15 w/lines 39-44, where each dimension of the multi-dimensional probability distribution has a corresponding cumulative distribution and where the analysis and comparison is represented by weighted summing of the squared differences between the cumulative distribution of the first behavior profile and each remaining first behavior profile at each attribute)

As per claim 6, Murad et al discloses:

Wherein similarity measures are defined and computed on the patterns extracted from the behavior profiles, (Col. 9, lines 39-44, represented by the cumulative distribution of behavior profiles).

As per claim 7, Murad et al discloses:

Wherein the computer program is further operative to compare the data cubes with similarity measures identifying fraud so as to extract fraud detection from the behavior profiles, (Col. 8, lines 10-15, represented by comparing the threshold value to determine if the daily profile is fraudulent or unusual).

As per claim 9, Murad et al discloses:

Wherein the behavior profiles are analyzed against a...threshold to detect caller fraud, (Col. 10, lines 30-39, represented by the comparison of the behavior profiles to

identify a deviation from the normal behavior where the deviation is designated as fraudulent).

Murad et al fails to disclose that the behavior profiles are personalized, however, McDonough et al discloses this feature in Col. 6, lines 63-66 where it is disclosed that a script enables a customer profile to be identified and the content of the script is personalized for the customer.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention for the behavior profiles to be analyzed against a personalized threshold with the motivation of treating and analyzing each customer individually according to their own individual behavior.

As per claim 10, Murad et al discloses:

Wherein the customer records comprise customer call records, the profiling engine builds and updates customer calling behavior profiles by mining the customer call records, and at the computer program derives similarity measures on patterns extracted form the call behavior profiles, (Col. 3, lines 25-32, where the customer records are represented by the customer call records, Col. 6, lines 55-61, where the building and updating of customer calling records is represented by the update of the clusters of daily profiles, Col. 10, lines 24-36, where the derivation of similarity measures is represented by the comparison to identify a deviation from normal behavior profiles).

As per claim 11 Murad et al discloses:

A data warehouse for storing customer records including telephone call data, (Col. 4, lines 18-19, represented by the memory);

A profiling engine configured to communicate with the data warehouse and operative to generate customer telephone calling behavior profiles from the customer record within the data warehouse, the profiling engine being configured to define customer telephone calling behavior profiles using probability distributions, (Col. 11, lines 26-35, represented by the means for obtaining a plurality of first behavior profiles), on multi-dimensional and multi-level data cubes, one multi-level data cube being a profile cube (Col. 6, lines 55-59 represented by the daily profile), another multi-level data cube being a profile-snapshot cube, (Col. 6, line 62-Col. 7, line 2, represented by the daily prototype referred to as the second level profile processing), and yet another data cube being a profile cube formed by merging together the profile cube and the profile-snapshot cube, (Col. 7, lines 3-17, represented by the third level overall profile);

a computer application program implemented on the profiling engine and operative to represent behavior profiles as patterns, using the telephone call data, and derive similarity measures of the patterns usable to profile customer behavior and detect fraud, by deriving calling pattern cubes from the profile cubes, (Col. 8, lines 61-66 w/ Col. 10, lines 30-39, where the computer application program is represented by the computer implemented method and the similarity measures are represented by the deviation form the normal behavior profile, Col. 3, lines 46-54, where call similarities or dissimilarities are obtained from the first level profile, Col. 4, lines 40-45, [where the

depicted squares represent count-cubes, esp. the Nth call prototype, which represents a profile])

using a probability distribution-based calling pattern, treating a sub-cube as a bag, and summarizing cell-wise comparison results based on bag overlap, (Col. 7, lines 58-65, w. Col. 8, lines 10-20, where the distance factor based on the Cumulative Distribution is determined in Col. 5, lines 52-Col. 6, line 5. In this case, the distance factor based on the Cumulative Distribution represents bag overlap using probability distribution-based calling pattern since when calculating the distance factor, if the value is negative, then the daily profiles {represented by cells} would overlap]).

Murad et al fails to disclose the following, however McDonough et al discloses:

and to compute the customer telephone-calling behavior profiles using OLAP operations, (Col. 11, lines 29-34 and Col. 12, lines 50-53, where the statistics represent the customer calling behavior profiles).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to incorporate OLAP into the Murad et al patent with the motivation of accurately analyzing trends in a telecommunications environment.

As per claim 16, Murad et al discloses:

Wherein the updated profile cube is stored within a profile table of the data warehouse such that subsequent customer profiling utilizes customer records from the data warehouse comprising the updated profile cube, (Fig. 2B, Col. 4, lines 41-45 w/ Col. 6, line 55-Col. 7, line 16, where the updated profile cube is represented by the call prototype).

As per claim 17, Murad et al discloses:

Providing call data in the form of call data records to a data warehouse, (Col. 4, lines 18-19, represented by the memory);

Generating a profile-snapshot cube accommodating multiple customers;(Col. 10, lines 24-25, represented by the first behavior profile for each cluster)

In combination with generating the profile-snapshot cube, generating a profile cube for the same set of customers from the data warehouse, (Col. 10, lines 26-37, where the data warehouse is shown by the arrangement of the records);

Updating the profile cube by merging the profile cube with the profile-snapshot cube, (Col. 7, lines 3-17, represented by the third level overall profile);

Storing the updated profile cube in the data warehouse, (Col.8-19, represented by the entry in the overall profile vector);

Murad et al fails to disclose the following, however, the following is obvious with McDonough since McDonough teaches that an OLAP tool is used to analyze trends and statistics for operational management of the environment (See Col. 11, lines 29-33):

Loading the call data records into a multidimensional database of an OLAP server.

In this type of situation, an OLAP server is necessary to provide the services of accessing the proper trend files and routing these trend files to other computers in the network for analysis. Without the OLAP server, the OLAP tool would have no way of keeping the trend files in order to have proper analysis.

Murad et al also fails to disclose the following:

Maintaining profiles by staging data between the data warehouse and the OLAP multidimensional database, (Col. 11, lines 18-33, where the data warehouse is represented by the statistics being gathered by event resources and the
It would have been obvious to one of ordinary skill in the art to maintain the profiles by staging data between the data warehouse and the OLAP multidimensional database with the motivation of taking this already stored data and making it accessible for reporting.

As per claim 18, Murad et al discloses:

Wherein the data warehouse comprises profile tables configured to store the profile cube, (Col. 4, lines 41-45, and Fig. 2B, where the profile cube ins represented by each depicted square)

As per claim 19, Murad et al discloses:

Wherein the updated profile cube is subdivided into a plurality of individual calling pattern cubes, each representative of individual customers, and further comprising comparing calling patterns that have been derived from customer calling behavior profiles, Col. 4, lines 41-45, where each depicted square represents a call prototype/profile where each call is made by a customer, Col. 3, lines 46-54, where the calling patterns are represented by the call that has a prototype similar or dissimilar and the calling behavior profiles are represented by the first level profile).

As per claim 20, Murad et al discloses:

Further comprising the steps of...analyzing...of one of the calling pattern cubes for an individual customer, (Col. 10, lines 30-38, esp. lines 33-39, where determining the difference represents the analyzing step).

Murad et al fails to disclose the following, however McDonough et al discloses:

Reporting and visualizing, (Col. 4, lines 31-34, and lines 38-40, represented by reporting of performance data and displaying performance data).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to report and visualize the calling pattern cubes with the motivation of producing a physical document that users can have as evidence when analyzing the calling patterns.

As per claim 21, Murad et al discloses:

Further comprising retrieving profile tables to generate the profile cubes, (Col. 4, lines 36-48 and Fig. 2B [call duration vs. time of day], where profile cubes are represented by call prototype squares), retrieving call data tables to create profile-snapshot cubes that have a same dimension of a profile cube to facilitate merging by addition, (Col. 10, lines 24-25, represented by the first behavior profile for each cluster), deriving individual customer-based calling pattern cubes from the profile cubes, (Col. 8, lines 15-20, where the two input calling pattern cubes are represented by two instances of the second level profile where the second level profile represents extracted call prototypes), analyzing individual calling patterns in multiple dimensions and multiple levels, and computing a similarity of calling patterns that belong to different customer or

to a same customer over different profiling periods, (Col. 10, lines 30-37, represented by comparing to identify the deviation).

As per claim 22, Murad et al discloses:

Wherein a cell of C5 is mapped into a pair of corresponding sub-cubes of C1 and C2, (Col. 8, lines 15-20, where the two input calling pattern cubes are represented by two instances of the second level profile where the second level profile represents extracted call prototypes).

As per claim 25, Murad et al discloses:

A data warehouse for storing customer records including telephone call data, (Col. 4, lines 18-19, represented by the memory);

A profiling engine configured to communicate with the data warehouse and operative to generate customer telephone calling behavior profiles from the customer record within the data warehouse, the profiling engine being configured to define customer telephone calling behavior profiles using probability distributions, (Col. 11, lines 26-35, represented by the means for obtaining a plurality of first behavior profiles), on multi-dimensional and multi-level data cubes, one multi-level data cube being a profile cube (Col. 6, lines 55-59 represented by the daily profile), another multi-level data cube being a profile-snapshot cube, (Col. 6, line 62-Col. 7, line 2, represented by the daily prototype referred to as the second level profile processing), and yet another data cube being a profile cube formed by merging together the profile cube and the profile-snapshot cube, (Col. 7, lines 3-17, represented by the third level overall profile);

a computer application program implemented on the profiling engine and operative to represent behavior profiles as patterns, using the telephone call data, and derive similarity measures of the patterns usable to profile customer behavior and detect fraud, by deriving volume based calling pattern cubes comprising count-cubes from the profile cubes, (Col. 8, lines 61-66 w/ Col. 10, lines 30-39, where the computer application program is represented by the computer implemented method and the similarity measures are represented by the deviation form the normal behavior profile, Col. 3, lines 46-54, where call similarities or dissimilarities are obtained from the first level profile, Col. 4, lines 40-45, [where the depicted squares represent count-cubes, esp. the Nth call prototype, which represents a profile], Col. 4, lines 50-59, esp. lines 57-59 and Col. 5, lines 23-25, [where the quantitative profile which indicates the usage volume number of calls made by the customer is disclosed])

using a probability distribution–based calling pattern, treating a sub-cube as a bag, and summarizing cell-wise comparison results based on bag overlap using cell-to-subcube mapping, (Col. 7, lines 58-65, w. Col. 8, lines 10-20, where the distance factor based on the Cumulative Distribution is determined in Col. 5, lines 52-Col. 6, line 5. In this case, the distance factor based on the Cumulative Distribution represents bag overlap using probability distribution-based calling pattern since when calculating the distance factor, if the value is negative, then the daily profiles {represented by cells} would overlap]).

Murad et al fails to disclose the following, however McDonough et al discloses:

and to compute the customer telephone-calling behavior profiles using OLAP operations, (Col. 11, lines 29-34 and Col. 12, lines 50-53, where the statistics represent the customer calling behavior profiles).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to incorporate OLAP into the Murad et al patent with the motivation of accurately analyzing trends in a telecommunications environment.

As per claim 26, Murad discloses:

Wherein the computer application program is operative to implement projection cell-to-subcube mapping, (Col. 7, lines 58-65, w. Col. 8, lines 10-20, [comparing quantitative profile to third level profile where the quantitative profile represents the cell and the third level profile represents the subcube]).

As per claim 27, Murad discloses:

Wherein the computer application program is operative to implement change level cell-to-subcube mapping, (col. 7, lines 25-30, [updating a capturing changes]).

As per claim 29, Murad discloses

Wherein an element of the bag is identified by a list of dimension values underlying a cell of the cube, and a count of the element is represented by a cell value, (Col. 3, lines 55-60, [shows that the CDR fields are defined by numerical values]).

As per claim 30, Murad discloses:

Wherein the count cubes having non-negative integer cell values, and the bag overlap enables comparison of corresponding sub-cubes of distinct count cubes, (Col. 7, lines 41-48, [shows that the distance between the qualitative profile and the nearest

non-zero daily prototype does not exceed a predetermined threshold value, in this case, the non-negative integer cell value is represented by the non-zero daily prototype and the comparison is represented by the distance. As described above, the comparison, showing the distance factor represents the bag overlap as long as the difference stays at or below the predetermined threshold, as shown by the equation Diff<=T]).

As per claims 31 and 32, Murad discloses:

Wherein each cell of Cs represents the similarity of a pair of corresponding sub-cubes, , (col. 7, lines 3-57, [where it shows that a comparison between qualitative profiles of a daily prototype and of the daily profile under examination as determined on the basis of the CD distance function. In this case, the Diff value represents each cell of Cs since it shows how similar/different the qualitative profiles of a daily prototype, which are derived from instances of a second level profile. This comparison, showing the distance factor represents the bag overlap. The overlap is shown by this distance factor since it is shown that the difference stays at or below the predetermined threshold]).

(10) Response to Argument

First, appellant argues that there is no motivation to combine the Murad et al and McDonough et al references. However, both references are directed towards monitoring and managing activities in a telecommunications environment, and therefore, the combination of the references is valid.

As per claim 1, appellant argues that Murad fails to disclose the use of data from telephone call records configured as data cubes, and further does not teach multidimensional, multi-level data mining techniques. First, Murad teaches that

telephone values are incorporated into monitoring of customer transactions in the telecommunications system in Col. 3, lines 23-59. Here, the call detail record (CDR) represents a profile and is used as a first level profile. This profile is used to extract other call prototypes, which is represented in Fig. 2B. In this figure, the calls are represented by data cubes according to call duration versus time of day. In this case the call data is represented by multidimensional cubes (since a call will go from one time of day to the next), and hierarchical dimensions since the second the Nth prototypes are derived from the first level prototype.

In addition, applicant argues that Murad dies not teach or suggest a data warehouse and OLAP server based profiling engine architecture. However, it is the combination of the Murad and the McDonough et al reference that teaches a data warehouse and OLAP server based profiling engine architecture. First off, the OLAP engine is a common database software used in the analysis of aggregated data to look for patterns and trends. The Murad patent does not specifically disclose the OLAP software, but does perform the analysis of aggregated call data in order to look for unusual activity in customer behavior related to calling patterns. In Murad, it would actually be obvious to use OLAP to analyze the call data since this data is already analyzed by software means to detect call patterns, and therefore, the specification of OL AP as the software used really has no bearing on the invention as claimed, and thus carries no patentable weight. However, the McDonough et al reference was used to show this one obvious deficiency in Murad. Specifically, McDonough et al discloses

that OLAP is used to analyze trends and statistics for call center data in Col. 12, lines 50-53.

Furthermore, appellant argues that Murad does not teach count-cubes, sub-cubes, bag overlap, and specifically "that the behavior profiles are provided as two input calling pattern cubes, C1 and C2, and a similarity cube, Cs, is an output of a comparison between C1 and C2, and wherein C1 and C2 are count-cubes, a sub-cube is treated as a bag, and cell-wise comparison results are summarized based on bag overlap, the comparison results are summarized based on bag overlap, the count-cubes having non-negative integer call values, and the bag overlap enables comparison of corresponding sub-cubes of distinct count-cubes". However, count cubes, are represented in Col. 7, lines 41-48. In this case, Murad shows that the distance between the qualitative profile and the nearest non-zero daily prototype does not exceed a predetermined threshold value. In this case, the non-negative integer cell value is represented by the non-zero daily prototype, and represents the count-cube value. In addition, the act of calculating the distance value represents the comparison of corresponding sub-cubes, where the sub-cubes are represented by the comparison of two instances of the second level profile in Col. 8, lines 15-20. With respect to bag overlap, in Col. 7, lines 41-48, Murad shows that the distance between the qualitative profile and the nearest non-zero daily prototype does not exceed a predetermined threshold value, in this case, the non-negative integer cell value is represented by the non-zero daily prototype and the comparison is represented by the distance. This comparison, showing the distance factor represents the bag overlap. The overlap is

shown by this distance factor since it is shown that the difference stays at or below the predetermined threshold. In addition, Murad applies two input calling patterns in the above relationship as well. Specifically, Col. 8, lines 15-20, of Murad shows two input calling pattern cubes through disclosing two instances of the second level profile where the second level profile represents extracted call prototypes.

As per claim 11, appellant argues that Murad fails to disclose deriving similarity measures of the patterns usage to profile customer behavior and detect fraud, by deriving calling pattern cubes from the profile cubes. However, in col. 10, lines 30-37, a new customer behavior profile is compared to the normal behavior profile, and using that difference to determine if there is unusual activity in a customer's behavior. As described above in preceding paragraphs, the customer's behavior patterns are derived from telephone calls made by the customer over a period in a day, as shown in Fig. 2B. Therefore, an accumulation of the call pattern data, which are derived from the call detail record (CDR), represents a profile and is used as a first level profile, and also used to extract or derive other call prototypes represented by the call pattern cubes s shown in Fig. 2B.

As per claim 17, appellant argues that Murad fails to disclose the generating of a profile-snapshot cube to accommodate multiple customers in combination with generating a profile cube for the same set of customers from the data warehouse. However, in Col. 7, lines 3-17, the profile cube and the profile snapshot cube are represented by the quantitative profiles, and summing these profiles represents the merging limitation to accommodate multiple customers. In addition, Murad discloses

accommodating multiple customers in Col. 10, lines 24-25, by deriving a first behavior profile for each cluster, when there are multiple clusters. In addition, Col. 10, lines 26-37, discloses where the data warehouse is shown by the arrangement of the records, which shows the representation of the generation of a profile cube for the same set of customers from the data warehouse.

As per claim 21, appellant argues that Murad does not disclose "retrieving profile tables to generate the profile cubes, retrieving call data tables to create profile-snapshot cubes that have a same dimension of a profile cube to facilitate merging by addition...". However, in Col. 10, lines 24-25, Murad discloses "determining a prototypical first behavior profile for each cluster". Murad then goes on to disclose "arranging the determined prototypical first behavior profiles into a plurality of records for representing a second behavior profile determined over said second predetermined time interval" in col. 10,lines 26-29. The fact that a second behavior profile is represented by the first represents the creation of a profile snap-shot cube that has the same dimension of a profile cube, where the record represents the table.

As per claim 25, appellant argues that Murad does not disclose the deriving of volume-based calling pattern cubes comprising count-cubes, nor summarizing cell-wise comparison results based on bag overlap using cell-to–subcube mapping, with count-cubes having non-integer cell values and the bag overlap enabling comparison of corresponding sub-cubes of distinct count-cubes. First, the volume-based calling pattern cubes comprising count cubes are represented in Fig. 2B, by showing multiple pattern cubes for call duration vs. time of day. Also, summarizing cell-wise comparison

results based on bag overlap using cell-to sub-cube mapping, with count-cubes having non-integer cell values and the bag overlap enabling comparison of corresponding sub-cubes of distinct count-cubes is represented in Col. 8, lines 15-20, where the two input calling pattern cubes are represented by two instances of the second level profile where the second level profile represents extracted call prototypes, and Col. 10, lines 30-37, where comparing is done to identify the deviation.

As per claim 25, appellant argues this claim for reasons similar to those of claim 1 and this claim is therefore rejected for the same reasons as discussed above with respect to claim 1.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Akiba Robinson-Boyce

Conferees:

John Weiss 5-15-06

Thomas Dixon

THOMAS A. DIXON
PRIMARY EXAMINER